Amendments to the Claims

1. (Currently Amended) A method for supporting a picture-in-picture (PIP) type time shifting comprising:

a first display step of receiving a plurality of broadcasting programs received through a broadcasting network, and displaying the respective live broadcasting programs through a PIP structure on a screen;

a second display step of selectively storing in a storage section one among the plurality of broadcasting programs displayed at the first display step, and selectively reproducing the stored broadcasting program through the time shifting to display the stored broadcasting program on the screen; and

a third display step of displaying through the PIP structure on the screen ~~a plurality of currently received other~~ at least one of the live broadcasting programs simultaneously with the time-shifted broadcasting program of the second display step.

2. (Original) The method as claimed in claim 1, the third display step further comprises the step of removing the picture of the selected broadcasting program reproduced through the time shifting, and displaying the plurality of the currently received live broadcasting programs through the PIP structure.

3. (Original) The method as claimed in claim 1, wherein the third display step further comprises the steps of:

removing the corresponding live broadcasting program currently received and storing the corresponding live broadcasting program in the storage section;

reproducing the stored corresponding broadcasting program; and

displaying the currently received live broadcasting program and the reproduced broadcasting program through the PIP structure on the screen.

4. (Currently Amended) An apparatus for supporting a PIP type time shifting comprising:

an NTSC/PAL encoding section for compressing and encoding an analog broadcasting signal received through a broadcasting network;

a demux section for selecting one of the analog broadcasting signal outputted from the NTSC/PAL encoding section and a digital broadcasting signal inputted through the broadcasting network;

a packet identifier (PID) filter section for filtering a plurality of TP stream packets to discriminate packets which coincide with packet identifiers (PIDs) desired to be recorded;

a storage section interface for enabling the TP stream packet selectively filtered through the PID filter section to be stored in a storage device with desired information added thereto, and for enabling the desired TP stream

among the TP streams stored in the storage device to be searched and read out; and

a remux section for ~~supporting a PIP function by selecting the desired stream among~~ simultaneously outputting at least one of the TP stream packets transmitted for a live broadcast ~~or the~~ and the time shifted TP stream packets read out from the storage device, ~~and converting the selected stream into the TP stream packets again~~ the output TP stream being converted into a display signal supporting a PIP function.

5. (Original) The apparatus as claimed in claim 4, wherein in case of a live PIP reproduction of all the inputted TP stream packets, the PID filter section, the storage section interface, and the remux section are all defined to be in a disable state.

6. (Original) The apparatus as claimed in claim 4, wherein in case of displaying in full only one stream packet selected among the inputted TP stream packets and performing the time shifting, the PID filter section and the storage section interface are defined to be in an enable state, and the remux section is defined to be in a disable state.

7. (Original) The apparatus as claimed in claim 4, wherein in case of a PIP reproduction wherein a portion of the TP stream packets is reproduced through the time shifting and the other portion thereof is simultaneously reproduced live, the PID filter section, the storage section interface, and the remux section are all defined to be in an enable state.

8. (Original) The apparatus as claimed in claim 4, wherein the PIDs of the TP stream packets have different values from one another.

9. (Currently Amended) An apparatus supporting a time-shifted picture-in-picture display, the apparatus comprising:

an input source for generating a plurality of signal components formed of a plurality of transport streams, each transport stream consisting of a series of transport packets having a corresponding packet identifier;

a packet identifier filter for discriminating the plurality of transport streams output from said input source, to separate the transport streams according to packet identifier, the separated transport streams including at least one transport stream for a time-shifted display and at least one transport stream for a live display, and for outputting at least one of the separated transport streams as a live transport stream;

a storage interface for selectively storing in a storage device the separated transport streams according to packet identifier, for accessing at least one stored transport stream, and for selectively outputting the accessed transport stream as a time-shifted transport stream; and

a re-multiplexer for ~~selectively~~ simultaneously outputting at least one of the live transport stream output from said packet identifier filter and the time-shifted transport stream output from said storage interface, the output transport stream being converted into a display signal supporting a picture-in-picture function.

10. (Previously Presented) The apparatus as claimed in claim 9, wherein the time-shifted transport stream output from said storage interface includes data selectively applied according to the picture-in picture function.

11. (Previously Presented) The apparatus as claimed in claim 9, wherein, to reproduce using the picture-in-picture function a live image for each of the plurality of transport streams, each of said packet identifier filter, said storage interface, and said re-multiplexer is disabled.

12. (Previously Presented) The apparatus as claimed in claim 9, wherein, to reproduce a full-display image corresponding to one time-shifted transport

stream among the plurality of transport streams, each of said packet identifier filter and said storage interface is enabled and said re-multiplexer is disabled.

13. (Previously Presented) The apparatus as claimed in claim 9, wherein, to reproduce using the picture-in-picture function to display simultaneously the plurality of transport streams so that the simultaneously displayed transport streams include at least one time-shifted transport stream and at least one live transport stream, each of said packet identifier filter, said storage interface, and said re-multiplexer is enabled.

14. (Previously Presented) The apparatus as claimed in claim 9, wherein said input source comprises:

at least one broadcast signal received from a broadcast network, said at least one broadcast signal including the plurality of signal components; and

a de-multiplexer, having a plurality of input terminals for respectively receiving said at least one broadcast signal, for selectively outputting one of said at least one broadcast signal to said packet identifier filter.

15. (Previously Presented) The apparatus as claimed in claim 14, wherein said at least one broadcast signal includes at least one analog broadcast signal and at least one digital broadcast signal.

16. (Previously Presented) The apparatus as claimed in claim 15, further comprising:

an NTSC/PAL encoder for compressing and encoding the received analog broadcast signal and outputting the compressed and encoded signal to one input terminal of said de-multiplexer.

17. (Previously Presented) The apparatus as claimed in claim 9, further comprising a display device for displaying the converted display signal output from said re-multiplexer.

18. (Previously Presented) The apparatus as claimed in claim 17, wherein said display device is provided in a digital television for processing at least one analog broadcast signal and at least one digital broadcast signal.

19. (Currently Amended) A digital television supporting a time-shifted picture-in-picture display, the digital television comprising:

a de-multiplexer having a plurality of input terminals for receiving at least one analog broadcast signal and at least one digital broadcast signal from a broadcast network, each broadcast signal including a plurality of signal components respectively formed of a plurality of transport streams and each transport stream consisting of a series of transport packets having a corresponding packet identifier, said de-multiplexer selectively outputting a broadcast signal corresponding to one of the plurality of input terminals;

a packet identifier filter for discriminating the plurality of transport streams output from said de-multiplexer, to separate the transport streams according to packet identifier, the separated transport streams including at least one transport stream for a time-shifted display and at least one transport stream for a live display, and for outputting at least one of the separated transport streams as a live transport stream;

a storage interface for selectively storing in a storage device the separated transport streams according to packet identifier, for accessing at least one stored transport stream, and for selectively outputting the accessed transport stream as a time-shifted transport stream;

a re-multiplexer for ~~selectively~~ simultaneously outputting at least one of the live transport stream output from said packet identifier filter and the time-shifted transport stream output from said storage interface, the output

transport stream being converted into a display signal supporting a picture-in-picture function; and

a display device for displaying the converted display signal output from said re-multiplexer.

20. (Previously Presented) The digital television as claimed in claim 19, further comprising:

an NTSC/PAL encoder for compressing and encoding the received analog broadcast signal and outputting the compressed and encoded signal to one input terminal of said de-multiplexer.

21. (Previously Presented) The digital television as claimed in claim 19, wherein, to reproduce using the picture-in-picture function a live image for each of the plurality of transport streams, each of said packet identifier filter, said storage interface, and said re-multiplexer is disabled.

22. (Previously Presented) The digital television as claimed in claim 19, wherein, to reproduce a full-display image corresponding to one time-shifted transport stream among the plurality of transport streams, each of said packet identifier filter and said storage interface is enabled and said re-multiplexer is disabled.

23. (Previously Presented) The digital television as claimed in claim 19, wherein, to reproduce using the picture-in-picture function to display simultaneously the plurality of transport steams so that the simultaneously displayed transport streams include at least one time-shifted transport stream and at least one live transport stream, each of said packet identifier filter, said storage interface, and said re-multiplexer is enabled.